

TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION RC-324

Effective February 1, 2012

*The following product has been evaluated for compliance with the wind loads specified in the **International Residential Code (IRC)** and the **International Building Code (IBC)**. This product shall be subject to reevaluation **December 2015**.*

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

FOAM-LOK LPA 2500, 2800, and 3000 Spray Applied Foam Roof Covering Systems, manufactured by

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is acceptable in designated catastrophe zones along the Texas Gulf Coast when installed in accordance with the manufacturer's installation instructions and this product evaluation.

PRODUCT DESCRIPTION

The FOAM-LOK LPA 2500, LPA 2800, and LPA 3000 are two-component, closed-cell, spray-applied polyurethane insulation systems. The LPA 2500 has a product density of 2.5 pcf. The LPA 2800 has a product density of 2.8 pcf, and the LPA 3000 has a product density of 3.0 pcf.

Roof Deck: The spray-applied polyurethane foam insulation systems may be applied to concrete and steel substrates. Refer to the approved assemblies for description of acceptable substrates.

Coatings: The coatings recognized in this report for use in the FOAM-LOK spray-applied polyurethane foam insulation roofing systems are the Thermo-Flex 1000 acrylic coating systems. The Thermo-Flex 1000 is a 100 percent acrylic, fire retardant, thixotropic, acrylic elastomeric coating used for the protection of the polyurethane foam insulation systems.

LIMITATIONS

Design Wind Pressures: The FOAM-LOK LPA 2500, LPA 2800, and LPA 3000 polyurethane insulation systems, when installed in accordance with this evaluation report, shall have the allowable uplift wind pressure specified in each assembly.

Installation Over an Existing Roof Covering: Installation of the FOAM-LOK LPA 2500, LPA 2800, and LPA 3000 polyurethane insulation systems over an existing roof covering is not within the scope of this evaluation report.

Product Identification: Each container of polyurethane foam plastic insulation bears a label with Lapolla Industries, Inc. name and address; the product name; the component type; the density; the shelf life; and the date of manufacture.

Application Conditions: Do not apply the FOAM-LOK LPA 2500, LPA 2800, and LPA 3000 polyurethane insulation systems if the ambient temperature is expected to fall below 50 degrees F. Do not apply if weather conditions will not permit complete cure before rain, dew, fog, or freezing temperatures.

INSTALLATION INSTRUCTIONS

General: All International Residential Code (IRC) and the International Building Code (IBC) requirements shall be satisfied and the manufacturer's installation instructions followed, unless otherwise specified, by this product evaluation.

Roof Slope: Positive drainage of the roof deck shall be provided.

Roof Deck: The roof deck shall be concrete or steel. Remove any contaminants that will interfere with total adhesion of the sprayed polyurethane to the substrate. The roof deck surface shall be free of loose particles, rust, scale, grease, dirt, or other contaminants.

Primers: Primers shall be applied in accordance with the manufacturer's installation instructions. All primers shall be thoroughly dry and cured prior to the foam application.

CONCRETE DECK ASSEMBLIES

Assembly No. 1

Design Pressure: -495 psf

Roof Deck: Minimum 2500 psi cast-in-place or pre-cast structural concrete.

Foam Application: A minimum of 2" thickness of FOAM-LOK LPA 2500, LPA 2800, or LPA 3000 polyurethane insulation uniformly applied directly to the roof deck in accordance with the manufacturer's installation instructions.

Coating: The Thermo-Flex 1000 acrylic coating system shall be applied in accordance with the manufacturer's installation instructions.

STEEL DECK ASSEMBLIES

Assembly No. 1

Design Pressure: -82.5 psf

Roof Deck: Minimum 22 gauge, 33 ksi steel deck with 6 foot spans. The steel deck is secured to minimum $\frac{1}{4}$ " steel supports with Traxx/5 fasteners and $\frac{3}{4}$ " washers spaced 6 inches on center. (every rib). The side laps are secured with Traxx/1 fasteners spaced 24 inches on center.

Foam Application: The FOAM-LOK LPA 2500, LPA 2800, or LPA 3000 polyurethane insulation fills the deck flutes and is uniformly applied to a minimum 2" thickness over the deck flutes in accordance with the manufacturer's installation instructions.

Coating: The Thermo-Flex 1000 acrylic coating system shall be applied in accordance with the manufacturer's installation instructions.

WOOD DECK ASSEMBLIES

Assembly No. 1

Design Pressure: -90.0 psf

Roof Deck: Minimum nominal $\frac{19}{32}$ " plywood deck.

Insulation Layer: Minimum $\frac{1}{2}$ " SecuRock insulation board. The insulation board is primed with Lapolla Therm-o-Prime in accordance with the manufacturer's installation instructions and secured to the roof deck with minimum No. 14 screws with 3" diameter metal insulation plates. A minimum of 16 fasteners shall be used per 4'x8' insulation board.

Foam Application: A minimum of 1" thickness of FOAM-LOK LPA 2500, LPA 2800, or LPA 3000 polyurethane insulation uniformly applied over the insulation board in accordance with the manufacturer's installation instructions.

Coating: The Thermo-Flex 1000 acrylic coating system shall be applied in accordance with the manufacturer's installation instructions.

Note: The manufacturer's installation instructions shall be on the job site during the installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions.